

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	10/603,666	KEENAN ET AL.
	Examiner	Art Unit

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2624

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address*--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Application filed on June 26, 2003.
2.  The allowed claim(s) is/are 1-20.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 6/26/03
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other

JINGGE WU  
PRIMARY EXAMINER

## **Information Disclosure Statement**

**1. The information Disclosure Statement (IDS) submitted on July 31, 2006, is being considered by the Examiner.**

## **Reasons for Allowance**

**2. The following is an Examiner's statement of reasons for allowance. The prior art of record fails to teach or suggest, spectral mixture process conditioned by spatially-smooth partitioning comprises (a) spatial consistency is imposed on said spectral content of each said site so that each said at least one second set is associated with a spatially smooth region in said image, post-processing smoothing operations suitable for application to diverse techniques for terrain categorization and classification in combination into other elements and features of claims 1 and 18; (b) the formulas cited in claim 19 in combination into other elements and features of claim19; (c) using a linear classifier to initialize said Gibbs-based partitioning algorithm, wherein said initializing results in improved label accuracy and smoothness as compared to using only said linear classifier without said Gibbs-based partitioning algorithm, and wherein global labeling accuracy is increased as compared to a stand-alone randomly initialized said Gibbs-based partitioning algorithm, and wherein said initializing said Gibbs-based partitioning algorithm with said linear classifier also reduces the computation by eliminating the need for a multi-grid process and by allowing said simulated annealing to start at a cooler temperature in combination into other elements and features of claim**

20.

3. **Claims 1-20 are allowed.**

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Citation of Relevant Prior Art**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Burman et al (U. S. 6,075,891) disclose non-literal pattern recognition method and system for hyperspectral imagery exploitation.

Haas et al (U. S. 6,771,798 B1) disclose hyperspectral visualization extensible workbench.

Palmadesso et al (U. S. 6,208,752 B1) disclose system for eliminating or reducing exemplar effects in multispectral or hyperspectral sensors.

Sweatt et al (U. S. 6,504,943 B1) disclose information efficient spectral imaging sensor.

### **Contact Information**

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (571) 272-7458.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Jingge Wu, can be reached at (571) 272-7429. The fax phone number for organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Technology Division 2624

December 08, 2006

A- Tabatabai

JINGGE WU  
PRIMARY EXAMINER